

## DEVICE FOR FRAMING AN ARTICLE

### RELATED APPLICATION

**[0001]** This application claims priority to International Application Number PCT/IB00/00941, having an international filing date of July 12, 2000.

### BACKGROUND OF THE INVENTION

**[0002]** This invention relates to a device for framing an article. It also relates to a frame component for a picture frame and to a method of assembly of a picture frame.

**[0003]** Certain conventional picture frames typically include an outer frame within which is mounted a cardboard panel such as matt board or the like with a central aperture. The panel has a viewer side and a rear side and an article is usually mounted within the aperture so that the panel defines a border between the article and the outer frame. A decorative beading may be attached about a periphery of the article, typically by means of a chemical adhesive, to the rear side of the panel to enhance the appearance of the frame.

### SUMMARY OF THE INVENTION

**[0004]** According to the invention, there is provided a device for framing an article, the device including

**[0005]** an outer frame component;

**[0006]** an outer panel including a rear side and a viewer side and defining an aperture, the outer panel being mounted within the outer frame component;

**[0007]** an inner frame component which is arranged to be seated in the aperture so that it overlaps with a peripheral region of the viewer side, the article being mountable within the inner frame component; and

**[0008]** transparent sheet material mounted to a frame component and covering the article.

**[0009]** The inner frame component may include an outer abutment surface which overlaps the peripheral region of the viewer side of the outer panel which defines the aperture thereby to conceal a peripheral edge of the aperture. Preferably, the device includes an inner panel which is located or locatable within the inner frame component. The inner panel may define an aperture within which the article is mounted and the inner frame component typically includes an inner abutment surface which overlaps a peripheral region of the inner panel in an abutting fashion.

**[0010]** In certain embodiments, the inner panel is an inner panel arrangement including at least two sub-panels e.g. of different colours. The inner panel arrangement may define a border between the article and the inner frame component.

**[0011]** The inner panel may have a rear side and a viewer side, the inner frame component being seated in the aperture of the outer panel arrangement so that it overlaps the peripheral region of its viewer side and it overlaps with an outer peripheral region of the viewer side of the inner panel arrangement.

**[0012]** In certain embodiments, the outer and inner abutment surfaces are coplanar. However, in other embodiments, the abutment surfaces lie in spaced planes so that, in use, the inner and outer panels lie in spaced planes.

**[0013]** The inner frame component may include a concealed portion and an exposed portion, the exposed portion defining the inner and outer abutment surfaces.

**[0014]** The inner frame component may define a generally T-shaped profile in which, when viewed in cross-section, the vertical component of the T-shaped profile corresponds with the concealed portion and the horizontal

component corresponding with the exposed portion.

**[0015]** The exposed portion preferably includes a visible decorative pattern. The exposed portion may have a height of between 1 mm and 3 mm.

**[0016]** The inner frame component is typically rectangular in outline and formed from four interconnected members.

**[0017]** The outer panel may define an outer panel arrangement, e.g. of different colours, including at least two sub-panels, which are arranged in a face-to-face abutting fashion and each of which defines apertures of different magnitudes. The panels are typically matt board or the like.

**[0018]** The outer frame component is typically a picture frame, or the like. Accordingly, the transparent sheet material is typically a sheet of glass about which the outer frame component extends.

**[0019]** Further in accordance with the invention, there is provided a method of assembling a frame for an article, the method including

**[0020]** providing an outer panel, an inner panel in which the article is to be mounted, an inner frame component which includes inner and outer abutment surfaces, an outer frame component, and transparent sheet material;

**[0021]** locating the inner frame component between the inner and the outer panels so that the outer and the inner abutment surfaces of the inner frame component abut an inner peripheral region of the outer panel and an outer peripheral region of the inner panel;

**[0022]** fastening the inner and outer panels to the inner frame component; and

**[0023]** mounting the outer panel within the outer frame component with the transparent sheet material over the inner frame component.

**[0024]** The method may include fastening of the panels to the inner

frame component by way of a mechanical fasteners selected from the group consisting of staples and tabs which are bent. In certain embodiments, staples in the form of "V-nails" are used.

**[0025]** The invention extends to an inner frame component for use in a device for framing an article, the device including an outer frame, an outer panel with an aperture, and an inner panel to which the article is mountable so that it is visible through the aperture, the frame component being configured to mount the inner panel to the outer panel and including a concealed portion and an exposed portion which has an outer abutment surface, the outer abutment surface concealing a peripheral edge of the aperture in use.

**[0026]** Preferably, the component includes an inner abutment surface which overlaps a peripheral region of the inner panel in an abutting fashion in use. In certain embodiments, the inner and outer abutment surfaces are coplanar. In other embodiments, the inner and outer abutment surfaces lie in spaced planes so that, in use, the inner and outer panels lie in spaced planes.

**[0027]** The inner frame component may define a generally T-shaped profile in which, when viewed in cross-section, the vertical component of the T-shaped profile corresponds with the concealed portion and the horizontal component corresponds with the exposed portion. The exposed portion preferably includes a visible decorative pattern. The exposed portion may have a height of between 1 mm and 3 mm.

**[0028]** The inner frame component is typically rectangular in outline and formed from four interconnected members.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0029]** The invention is now described, by way of example, with reference to the accompanying diagrammatic drawings.

**[0030]** In the drawings,

**[0031]** Figure 1 shows a front view of a picture frame in accordance with the invention;

**[0032]** Figure 2 shows a three-dimensional bottom view of part of the frame of Figure 1 taken at II-II;

**[0033]** Figure 3 shows a three-dimensional view of an inner frame component of the frame of Figure 1;

**[0034]** Figure 4 shows a three-dimensional view of a further embodiment of an inner frame component;

**[0035]** Figure 5 shows a side view of the inner frame component of Figure 4; and

**[0036]** Figure 6 shows a side view of a yet further embodiment of an inner frame component.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0037]** Referring to the drawings, reference numeral 10 generally indicates a picture frame or device, in accordance with the invention, for framing an article. The frame 10 includes an outer panel 12 and an inner panel 14 which are separated by an inner frame component 16. The outer panel 12 defines an aperture or opening 18 in which the inner frame component 16 is seated as described in more detail below.

**[0038]** The outer panel 12 is typically matt board or any other cardboard sheet which is typically used in conventional picture framing applications. In a conventional manner, the opening 18 is formed by removing a central portion (not shown) from the outer panel 12. The outer panel 12 has a rear side 12.1 (see Figure 2) and a viewer side 12.2 (see Figures 1 and 2) and is mounted in

a conventional outer frame 20 (only shown in Figure 1) including a sheet of glass 21. As in the case of the outer panel 12, the inner panel 14 includes a rear side 14.1 (see Figure 2) and a viewer side 14.2 (see Figures 1 and 2). A further opening 22 is formed in the inner panel 14 for receiving an article to be framed e.g. a certificate, photograph or the like. It is to be appreciated that, in certain embodiments, the outer panel 12 and inner panel 14 may each be composite in nature defining outer and inner panel arrangements comprising a plurality of matt boards or cardboard panels arranged with apertures or openings of various sizes and located in an abutting fashion.

**[0039]** The inner frame component 16 is composite in nature including four interconnected members 16.1 to 16.4 which are cut from a length of material. Each component 16.1 to 16.4 is cut to an appropriate length, depending upon the magnitude or size of the aperture or opening 18 of the frame 10, so that its ends are cut at 45° and interconnected in a conventional fashion by means of staples or "V-nails" 24 (only one of which is shown in Figure 2 of the drawings) to define a rectangular framelike component. The component 16 has a concealed portion 26 (see Figures 2 and 3) and an upper decorative portion 28 which defines abutment surfaces 30, 32. The opening 18 in the outer panel 12 is shaped and dimensioned so that the inner frame component 16 is seated therein so that the abutment surface 30 abuts an inner peripheral end region 34 (see Figures 1 and 2) of the outer panel 12. In a similar fashion, the inner panel 14 is shaped and dimensioned to be received within the inner frame component 16 so that its outer peripheral end region 36 abuts the abutment surface 32. Accordingly, the inner frame component 16 is positioned between the outer panel 12 and the inner panel 14 in such a fashion so that its abutment surfaces 30, 32 abut the viewer sides 12.2, 14.2 respectively. Inaccuracies in forming or cutting the opening 18 or an outer peripheral edge 38 of the inner panel 14 are thus concealed by the inner frame

component 16, as discussed in more detail below.

**[0040]** Unlike conventional decorative components which are used as a border between different cardboard panels in a conventional picture frame, which conventional components include a single abutment surface which is typically attached to a rear or non-visible side of an outer panel by an adhesive which takes time to dry, the outer and inner panels 12, 14 may be stapled from the rear sides 12.1, 14.1 by means of conventional staples 40 to the inner frame component 16. In addition or instead, conventional tabs 42 may be used to secure the inner frame component 16 to the outer panel 12 and/or the inner panel 14.

**[0041]** As is clearly seen in Figures 2 and 3 of the drawings, abutment surfaces 30, 32 of the inner frame component 16 lie in the same plane 44. Accordingly, the outer and inner panels 12, 14 also lie in the same plane 44. Referring in particular to Figures 4 to 6 of the drawings, reference numerals 60 and 70 generally indicate further embodiments of inner frame components. The inner frame components 60, 70 resemble the inner frame component 16 and, accordingly, like reference numerals have been used to indicate the same or similar features unless otherwise indicated.

**[0042]** As in the case of the inner frame component 16, the inner frame component 60 includes a decorative portion 28 and a concealed portion 26. However, unlike the inner frame component 16, the inner frame component 60 has its abutment surfaces 30, 32 in different spaced apart planes 64, 62. Accordingly, dependent upon the orientation of the inner frame component 60 within the opening 18, the inner panel 14 may be sunken or raised so that the outer and inner panels 12, 14 lie in spaced planes. For example, the outer panel 12 may abut the abutment surface 30 and the inner panel 14 may abut the abutment surface 32 to provide a sunken effect as shown in Figure 5 of the

drawings.

**[0043]** The inner frame component 70 substantially resembles the inner frame component 60 but differs in that it does not include the concealed portion 26. Accordingly, the abutment surface 32 is larger and the inner panel 14 or artwork may be attached in a similar fashion to the inner frame components 16, 60. The inner frame components 16, 60, 70 are generally T-shaped when viewed in cross-section.

**[0044]** In conventional framing arrangements where a conventional beading is used to enhance the decorative effect of a picture frame, the beading typically includes a single abutment surface which is glued to a non-viewer or rear side 14.1 of the outer panel 12. Accordingly, any imperfections in workmanship in cutting the opening 18 are visible from the viewer side 12.1. Further, as the outer panel 12 is seated on a peripheral lip of the conventional beading, it is undesirable to use staples 40 or tabs 42 to secure the outer panel 12 to the beading as they would be clearly visible to an observer of the conventional picture frame. Further, elaborate arrangements are required to provide panels in different planes to create a so-called boxlike effect.

**[0045]** However, with the picture frame 10 in accordance with the invention having its inner frame component 16, 60, 70 seated in an abutting fashion on a viewer side 12.2 of the outer panel 12, any imperfections in cutting out the opening 18 are concealed. Further, although an adhesive may be used to secure the inner frame component 16, 60, 70 to the outer panel and/or inner panel 12, 14 respectively, mechanical fasteners such as staples 40 and/or tabs 42 which are not visible from the viewer sides 12.1, 14.1 may be used. Unlike adhesives which require time to dry, the staples 40 and/or the tabs 42 are immediately effective and production or assembly time of the frame 10 is thereby reduced. Further, the inner frame components 60, 70 allow assembly of frames to provide a boxlike effect with relative ease as the abutment



surfaces 30, 32 are spaced.

**[0046]** It is important to note that the inner frame component 16, 60, 70 need not provide any rigidity to the frame 10. It is typically in the form of a beading performing primarily two functions. Firstly, it performs a decorative function to enhance the aesthetic appeal of the frame 10. Secondly, the inner frame component 16, 60, 70 performs the important function of concealing the inner peripheral border or edge defining the opening 18. It is believed that this has particular advantages in the manufacturing process. It is particularly difficult to provide an acceptable peripheral border, which is visible to a viewer, in conventional framing techniques. As mentioned above the inner frame component 16, 60, 70 conceals imperfections in the cutting process. Accordingly, as a lower accuracy and integrity of the cut creating the opening 18 is required, it may be performed more quickly thereby expediting the manufacturing process.

**[0047]** As is clearly seen in the drawings, the decorative portion 28 of the component 16 does not extend substantially above the abutment surfaces 30, 32. Typically, the decorative portion has a height 33 of between about 1 mm and 3 mm, typically about 2 mm, and the total height 35 of the component is typically about 6 mm. In a similar fashion, the decorative portion of the component 60 has a height 33.1 of between about 1 mm and 3 mm, typically about 2 mm. In view of the relatively low height of the decorative portion 28 it is generally not substantially spaced from the viewer side 12.2 of the outer panel 12 and, accordingly, the sheet of glass 21 may be positioned relatively close to the outer panel and may abut the decorative portion 28. The inner frame component 16, 60, 70 is typically a synthetic plastics extrusion, wood, or the like. In larger frames 10, multiple layers of matt board, which define the outer panel 12, may be provided to enhance the rigidity of the frame 10 as the inner frame component 16, 60, 70 does not necessarily provide rigidity due to

the fine construction it may have.

**[0048]** The invention extends to a method of manufacturing the frame 10. The method may include cutting an aperture or opening 18 in the outer panel 12 using conventional techniques. Thereafter, the size of the inner frame component 16, 60, 70 is determined. The members 16.1 to 16.4 are then cut, typically at 45°, and the inner frame component 16, 60, 70 is then assembled from the members 16.1 to 16.4 which are typically joined by conventional staples. The inner frame component 16, 60, 70 is then dropped into the opening 18 and its abutment surfaces 30, 32 cover any imperfections in the cutting of the opening 18. The inner frame component is then attached to the outer panel 12 and the inner panel 14 (which may be artwork) is attached by mechanical fastening means such as staples or tabs. It is however to be appreciated that it may be attached by means of an adhesive but mechanical fastening means are preferred as they do not require a drying time. The method also includes the step of mounting the outer panel 12 in the outer frame 20 which is typically conventional.

**[0049]** The Inventor believes that the invention, as illustrated, provides an enhanced picture frame 10 in which cutting imperfections when creating the opening 18 are concealed by the inner frame component 16, 60, 70 as it is seated on peripheral regions 36, 38 of the viewer sides 12.1, 14.1 of the outer and inner panels 12, 14 respectively.